What is claimed is:

1. A method for identifying a tumor-associated antigen, comprising:

(a) preparing an array of proteins from a biological sample;

(b) obtaining a first serum sample and a second serum sample from a subject, respectively, before and after treatment of the subject with a vaccine comprising proliferation-incompetent tumor cells which express GM-CSF and the tumor-associated antigen;

(c) contacting a first sample of the array of proteins with the first serum sample;

(d) contacting a second sample of the array of proteins with the second serum sample;

(e) identifying in the array a protein which reacts with the second serum sample but not with the first serum sample,

wherein the reactive protein is a tumor-associated antigen which elicited an immune response by the subject after treatment of the subject with the vaccine.

2. The method of claim 1, wherein the subject is a human subject and the biological sample and the tumor cells are of human origin.

3. The method of claim 1, wherein the array is prepared by separating the proteins by molecular weight by sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE).

4. The method of claim 2, wherein the biological sample is selected from the group consisting of blood, serum, a tissue biopsy, spinal fluid, saliva, lacrimal secretions, semen, vaginal secretions, feces, urine, ascites fluid, and a tumor cell line.

5. The method of claim 2, wherein the biological sample is a tumor cell line.

6 The method of claim 1, wherein the proliferation incompetent tumor cells are autologous.

7. The method of claim 1, wherein the proliferation incompetent tumor cells are allogeneic.

8. The method of claim 7, wherein the proliferation incompetent tumor cells are from a tumor cell line.

9. The method of claim 2, wherein the subject has prostate cancer and the tumor cells are from one or more prostate tumor cell lines.

10. The method of claim 1, wherein before contact with the protein arrays, said first and second serum samples are purified so as to remove components that are not antibodies.

11. A method of screening for the presence of a tumor associated antigen in a biological specimen, comprising:

(a) isolating the tumor-associated antigen identified according to the method of claim 1;

(b) preparing an antibody directed to the isolated tumor-associated antigen;

(c) contacting the biological specimen with the antibody; and

(d) detecting whether an antigen-antibody reaction occurs,

wherein the presence of the antigen-antibody reaction is indicative of the presence of the tumor-associated antigen in the biological specimen.

12. The method of claim 11, wherein the tumor associated antigen in the biological specimen is on a tumor cell.

13. The method of claim 11, wherein the antibody of step (a) is a monoclonal antibody.

14. The method of claim 11, wherein the antibody of step (a) comprises polyclonal antibodies.

15. The method of claim 11, wherein the biological specimen is selected from the group consisting of blood, serum, a tissue biopsy, spinal fluid, saliva, lacrimal secretions, semen, vaginal secretions, feces, urine, ascites fluid, and a tumor cell line.

16. A kit for screening for the presence of a tumor-associated antigen in a biological sample, comprising:

(a) unlabelled first antibodies directed to a tumor associated antigen, the tumor-associated antigen being reactive with serum from a subject treated with a vaccine comprising proliferation-incompetent tumor cells which express the tumor-associated antigen and GM-CSF, but not being reactive with serum from the subject before treatment with the vaccine;

(b) a solid support for adhering the first antibodies; and

(c) labelled second antibodies.

17. The kit of claim 16, wherein the solid support is a plastic support.

18. The kit of claim 16, wherein the first and second antibodies are monoclonal antibodies.

19. The kit of claim 16, wherein the unlabelled first antibodies are directed to a first epitope of the tumor-associated antigen, and the labelled second antibodies are directed to a different epitope of the tumor-associated antigen.

20. A kit for screening for the presence of a tumor-associated antigen in a biological sample, comprising:

(a) unlabelled first antibodies directed to a tumor associated antigen, the tumor-associated antigen being reactive with serum from a subject treated with a vaccine comprising proliferation-incompetent tumor cells which express the tumor-associated antigen and GM-CSF, but not being reactive with serum from the subject before treatment with the vaccine;

(b) a solid support for adhering the biological sample; and

(c) labelled second antibodies directed to the first antibodies.

21. The kit of claim 20, wherein the solid support is a plastic support.

22. The kit of claim 20, wherein the first and second antibodies are monoclonal antibodies.